



- (2) Component intended to be incorporate into equipment or protective system intended for use in explosive atmospheres
Directive 94/9/EC

(1) EC-TYPE EXAMINATION CERTIFICATE

- (3) Number of the EC type examination certificate: **INERIS 14ATEX9014U**

- (4) Component:

**Breathing and draining devices and bulkheads
TYPE V**S or VD**S or VF**S or VDF**S or P**S-****

- (5) Manufacturer: **RIBCO**

- (6) Address: Via dei Mille, 12
20061 Carugate (MI)
ITALY

- (7) This component and any other acceptable alternative of this one are described in the annex of this certificate and the descriptive documents quoted in this annex.

- (8) INERIS, notified body and identified under number 0080, in accordance with article 9 of Council Directive 94/9/EC 23rd March 1994, and accredited by COFRAC under number 5-0045 for certification of products and services (scope of accreditation available on the website www.cofrac.fr), certifies that this component fulfils the Essential of Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, described in appendix II of the Directive.

The examinations and the tests are consigned in report No 027955/14.



- (9) The respect of the Essential Health and Safety Requirements is ensured by:

- conformity with:

EN 60079-0 : 2012/A11 : 2013
EN 60079-1 : 2007
EN 60079-7 : 2007
EN 60079-31 : 2009

- specific solutions adopted by the manufacturer to meet the Essential Health and Safety Requirements described in the descriptive documents.

- (10) Sign U, when it is placed following the Number of the EC type examination certificate, indicates this one should not be wrongly considered as an EC type examination certificate delivered for equipment or protective system. This partial certification may be used as a basis for the certification of equipment or protective system.
- (11) This EC type examination certificate relates only to the design, examination and tests of the specified component in accordance to the directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system, these are not covered by this certificate.
- (12) The marking of the component will have to contain:

 I M2  II 2 GD

Verneuil-en-Halatte, 2014.07.21



The Chief Executive Officer of INERIS
By delegation
T. HOUEIX
Ex Certification Officer

(13)

A N N E X

(14)

EC TYPE EXAMINATION CERTIFICATE N° INERIS 14ATEX9014U

(15) DESCRIPTION OF COMPONENT

The bulkheads and the breathing and draining devices are made in AISI 316 L.
These devices get the degree of protection IP66 or IP64 according to the EN 60529 standard.

PARAMETERS RELATING TO THE SAFETY

Size of cable entries:

Breathing and draining devices:

Taper threading : 3/8 " NPT or 1/2 " NPT or 3/4 " NPT.

Cylindrical threading : M16 x 1.5 or M20 x 1.5 or M25 x 1.5

Bulkheads:

Cylindrical threading : M12 x 1.5 or M16 x 1.5 or M20 x 1.5 or M25 x 1.5

MARKING

Marking has to be readable and indelible; it has to include the following indications:

RIBCO

20061 Carugate (MI)

V**S or VD**S or VF**S or VDF**S or P**S-**

INERIS 14ATEX9014U

(Year of construction)

⊕ Ex I M2 ⊕ Ex II 2 GD

Ex d I Mb

Ex d IIB+H₂ or IIC T6 Gb

Ex e IIC Gb

Ex tb IIIC Db IP64 or IP66

Tamb. -20° C / -30° C / -40° C / -50° C / -60° C to +60° C

On the small equipments, the marking can be reduced:

RIBCO-IT

V**S or VD**S or VF**S or VDF**S or P**S-**

INERIS 14ATEX9014U

(Year of construction)

⊕Ex I M2 ⊕Ex II 2 GD

Ex d/e/tb

IP64 or IP66

Tamb. -20°C/-30°C/-40°C/-50°C/-60°C to +60°C

Marking may be carried out in the language of the country of use.

The component has also to carry the marking normally stipulated by its construction standards.

ROUTINE EXAMINATIONS AND TESTS

Each component defined above has to have successfully passed the following individual tests before delivery:

In accordance with clause 16.1 of the IEC 60079-1 standard, an overpressure test of a period comprised between 10 and 60 seconds under:

- 60 bar for -20°C.
- 82.2 bar for -30°C.
- 87 bar for -40°C.
- 91.8 bar for -50°C.
- 97.2 bar for -60°C.

(16) DESCRIPTIVE DOCUMENTS

The descriptive document quoted hereafter constitutes the technical documentation of the component, subject of this certificate.

- Certification Dossier DC-VP-00 Rev.0(23 pages)

signed on 2014.03.10

(17) SCHEDULE OF LIMITATION

- The devices IIC are for Ex d enclosures with maximal internal volume equal to 62.9 l.
- The devices IIB+H₂ are for Ex d enclosures with maximal internal volume equal to 160.6 l.
- The devices Ex d are T6 for an ambient temperature of +60°C. (maximum heating of +13.9K)
- The components have been tested for pressure of 60 bar (-20°C) and 100 bar (-60°C).
- All devices have IP66, except for the devices series VD**S, V**S and P**S-** that have the degree of protection IP64. The IP test has been performed without O-Ring.
- The devices series VD**S can reach the degree of protection IP66 with a plastic cap. The IP test has been performed without the EN 60079-0 preliminary test on the plastic cap.
- An impact test of 20 J has been performed on the devices.

The other conditions are stipulated in the instructions.

(18) ESSENTIAL SAFETY AND HEALTH REQUIREMENTS

The respect of the Essential Health and Safety Requirements is ensured by:

- Conformity to the standards quoted in clause (9).
- All provisions adopted by the manufacturer and defined in the descriptive documents.